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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
DANIEL JR, WILLIE J	

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/052,458	JECHOUX, BRUNO	
	Examiner	Art Unit	
	Willie J. Daniel, Jr.	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *13-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 29 May 2007. **Claims 1-12** are now pending in the present application and **claims 13-14** are withdrawn (i.e., hereby considered cancelled). This office action is made **Non-Final**.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 May 2007 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a. **Claim 1** recites the limitation "...generating a pseudo-random sequence seed at the fast allocation controller..." in line(s) 7 of the claim. The applicant on pg. 8, footnote

1, of the remarks section states, "...specification at page 7, lines 15-21..." as support for the claimed limitation. The cited area does not mention the limitation.

Regarding **claim 1**, the claim(s) include(s) a limitation that is not supported by the specification as originally filed. The applicant is advised to review the subject matter of the specification (see pg. 7, lines 15-17; pg. 9, line 20), which basically describes the seed values are known. Consequently, there is no language in the specification that describes the limitation of item 3a above as recited in said claims. Applicant is advised to clearly and concisely provide claim language that is consistent and correlates to the specification and mindful not to improperly utilized language that is clearly not supported. The Examiner respectfully requests the applicant to provide page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s) to help clarify and resolve this issue(s).

4. Due to the new matter provided in the current claim language that is not supported by the instant application as originally filed, the Examiner has given a reasonable interpretation of said language and the claims are rejected as broadest and best interpreted.
5. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5, and **7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki** (**US 6,256,356 B1**) in view of **Flammer, III et al.** (hereinafter Flammer) (**US 5,515,369**), and **Almgren et al.** (hereinafter Almgren) "**Adaptive Channel Allocation in TACS**", and **Ozluturk** (**US 6,754,497 B1**).

Regarding **claim 1**, Suzuki discloses a method for dynamic allocation of transmission resources to a plurality of communications between a base station and a plurality of mobile terminals, each resource consisting of a plurality of possible configurations, an control section (20) which reads on the claimed "allocation controller" associated with the base station, referred to as the fast allocation controller (20), being able to allocate to the said communications only certain combinations of possible configurations, referred to as available resources (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the resources (e.g., band and time slots) of the system are allocated to communications with the base station and terminal units. Suzuki does not specifically disclose having the features generating a pseudo-random sequence seed at the fast allocation controller; generating a pseudo-random sequence at the fast allocation controller; and performing allocation at a regular interval at the fast allocation controller by selecting at least one available resource configuration for each of a plurality of communications between the

base station and the plurality of mobile terminals at a start of each regular interval according to a value of the pseudo-random sequence; transmitting the pseudo-random sequence seed to the plurality of mobile terminals; and generating an identical pseudo-random sequence as generated at the fast allocation controller at each of said plurality of mobile terminals based on the pseudo-random sequence seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller. However, the examiner maintains that the features generating a pseudo-random sequence at the fast allocation controller; and performing allocation by selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals according to a value of the said pseudo-random sequence; transmitting the pseudo-random sequence seed to the plurality of mobile terminals; and generating an identical pseudo-random sequence as generated at the fast allocation controller at each of said plurality of mobile terminals based on the pseudo-random sequence seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller was well known in the art, as taught by Flammer.

In the same field of endeavor, Flammer discloses the features

generating a pseudo-random sequence at the pseudo-random number generator which reads on the claimed "fast allocation controller" (see col. 4, lines 36-62; Fig. 2); and

performing allocation by selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals according to a value of the said pseudo-random sequence (see col. 4, lines 36-62; Fig. 2);

transmitting the pseudo-random sequence seed to the plurality of mobile terminals (see col. 4, lines 36-62; Fig. 2); and

generating an identical pseudo-random sequence as generated at the fast allocation controller at each of said plurality of mobile terminals based on the pseudo-random sequence seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller (see col. 4, lines 40-47). As a note, Flammer teaches generating a pseudo-random sequence seed at the fast allocation controller (see col. 4, lines 32-36), where the system has a seed value in which the seed value must be generated.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the features generating a pseudo-random sequence at the fast allocation controller; and performing allocation by selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals according to a value of the said pseudo-random sequence; transmitting the pseudo-random sequence seed to the plurality of mobile terminals; and generating an identical pseudo-random sequence as generated at the fast allocation controller at each of said plurality of mobile terminals based on the pseudo-random sequence seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller, in order to allow individualized seamless elimination of inoperable channels from a particular node's band plan, as taught by Flammer (see col. 2, lines 59-62). The combination of Suzuki and Flammer does not specifically disclose having the feature performing allocation at a regular interval at the fast allocation controller by selecting at least one available resource configuration for each of a plurality of

communications between the base station and the plurality of mobile terminals at a start of each regular interval. However, the examiner maintains that the feature performing allocation at a regular interval at the fast allocation controller by selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals at a start of each regular interval was well known in the art, as taught by Almgren.

In the same field of endeavor, Almgren discloses the feature performing allocation at a regular interval (e.g., time period) at the fast allocation controller by selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals at a start of each regular interval (e.g., time period) (see pg. 1518, right col., section II. C, lines 15-26; pg. 1517, right col., section I., lines 8-12; pg. 1517, left col., abstract, lines 15-17), where the system for allocation has a slow ACA which uses a larger time constant such as few hours or several days and a fast ACA which uses a short time constant to allocate channel assignment for arriving calls. The time constant represents a constant time that is regularly used by the system which directly and clearly corresponds to a regular interval. Since the slow ACA allocates channels to the fast ACA, one of ordinary skill in the art would clearly recognize that the slow ACA would utilize a longer time (or not a shorter time) than the fast ACA in order for the system to optimally adapt or adjust to network issues.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Almgren to have the feature performing allocation at a regular interval at the fast allocation controller by

selecting at least one available resource configuration for each of a plurality of communications between the base station and the plurality of mobile terminals at a start of each regular interval, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5). The combination of Suzuki, Flammer, and Almgren does not specifically disclose having the feature generating a pseudo-random sequence seed at the fast allocation controller. However, the examiner maintains that the feature generating a pseudo-random sequence seed at the fast allocation controller was well known in the art, as taught by Ozluturk.

In the same field of endeavor, Ozluturk discloses the feature generating a pseudo-random sequence seed at the fast allocation controller (see col. 3, lines 55-56). As further support, Ozluturk further discloses the feature generating an identical pseudo-random sequence as generated at the fast allocation controller at each of said plurality of mobile terminals based on the pseudo-random sequence seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller (see col. 3, lines 26-35; col. 4, lines 52-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the feature generating a pseudo-random sequence seed at the fast allocation controller, in order to provide a communication system where transmission between a roving subscriber and multiple base station transceivers is maintained, as taught by Ozluturk (see col. 2, lines 17-19).

Regarding **claim 2**, Suzuki as applied to claim 1 discloses of the feature wherein a configuration of available resources are allocated (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the resources configuration (e.g., frequency band and time slots) of the system are allocated to communications with the base station and terminal units. Suzuki does not specifically disclose having the feature sequentially indexing each of the available resources for each regular interval, wherein a configuration of available resources is allocated if an index of the configuration is equal to a value in the pseudo-random sequence. However, the examiner maintains that the feature sequentially indexing each of the available resources, wherein a configuration of available resources is allocated if an index of the configuration is equal to a value in the pseudo-random sequence was well known in the art, as taught by Flammer.

Flammer further discloses the feature sequentially indexing each of the available resources, wherein a configuration of available resources is allocated if an index of the configuration is equal to a value in the pseudo-random sequence (see col. 4, lines 36-62; Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature sequentially indexing each of the available resources, wherein a configuration of available resources is allocated if an index of the configuration is equal to a value in the pseudo-random sequence, in order to allow individualized seamless elimination of inoperable channels from a particular node's band plan, as taught by Flammer (see col. 2, lines 59-62). The combination of Suzuki and Flammer does not specifically disclose having the feature

indexing each of the available resources for each regular interval. However, the examiner maintains that the feature indexing each of the available resources for each regular interval was well known in the art, as taught by Almgren.

Almgren further discloses the feature indexing each of the available resources for each regular interval (e.g., time period) (see pg. 1518, right col., section II. C, lines 15-26; pg. 1517, right col., section I., lines 8-12; pg. 1517, left col., abstract, lines 15-17), where the system for allocation has a slow ACA which uses a larger time constant such as few hours or several days and a fast ACA which uses a short time constant to allocate channel assignment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the feature indexing each of the available resources for each regular interval, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **claim 3**, Suzuki as applied to claim 1 discloses of the feature further comprising transmitting parameters for generating the pseudo-random sequence from the base station to the terminal units which reads on the claimed "mobile terminals" (see col. 9, lines 13-22; col. 10, lines 18-40; Figs. 2-5). Suzuki does not specifically disclose having the feature generating pseudo-random sequence by the mobile terminals from the generation parameters. However, the examiner maintains that the feature generating pseudo-random sequence by the mobile terminals from the generation parameters was well known in the art, as taught by Flammer.

Flammer further discloses the feature generating pseudo-random sequence by the target node which reads on the claimed "mobile terminals" from the generation parameters (see col. 3, line 52 - col. 4, line 9; col. 4, lines 28-62; Figs. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the feature generating pseudo-random sequence by the mobile terminals from the generation parameters, in order to allow individualized seamless elimination of inoperable channels from a particular node's band plan, as taught by Flammer (see col. 2, lines 59-62).

Regarding **claim 4**, the combination of Suzuki and Flammer discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses wherein the transmission resources of a plurality of adjacent base stations (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system. Also, a controller would be inherent for controlling the base stations. The combination of Suzuki and Flammer does not specifically disclose having the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations. However, the examiner maintains that the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the

said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations was well known in the art, as taught by Almgren.

In the same field of endeavor, Almgren discloses the feature base stations are controlled by a slow ACA algorithm which reads on the claimed "slow allocation controller", the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast ACA algorithm which reads on the claimed "fast allocation controllers" associated with the said base stations (see pg. 1518, right col. section C, lines 1-15; left col., section B; 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **claim 5**, the combination of Suzuki, Flammer, Almgren, and Ozluturk discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses the method according to claim 1, further comprising an item (e.g., data) of information supplying the resources available at a base station to the mobile terminals which the base station serves (see col. 6, lines 32-37; col. 7, lines 1-10; cold. 8, line 66 - col. 9, line

22; Figs. 6-7), where the data required for assigning resources is transmitted to the terminal units.

Regarding **claim 6**, the combination of Suzuki and Flammer discloses every limitation claimed as applied above in claim 4. The combination of Suzuki and Flammer does not specifically disclose having the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency corresponding to the regular interval, the second frequency higher than the first frequency. However, the examiner maintains that the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency corresponding to the regular interval, the second frequency higher than the first frequency was well known in the art, as taught by Almgren.

Almgren further discloses the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency (e.g., short term) corresponding to the regular interval, the second frequency higher than the first frequency (e.g., long time period) (see pg. 1518, right col., section II. C, lines 15-26; pg. 1517, right col., section I., lines 8-12; pg. 1517, left col., abstract, lines 15-17), where the system for allocation has a slow ACA which uses a larger time constant such as few hours or several days and a fast ACA which uses a short time constant to allocate channel assignment for arriving calls.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the feature wherein the performing the allocation allocates the resources

available at the base station at a second frequency corresponding to the regular interval, the second frequency higher than the first frequency, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **claim 7**, the combination of Suzuki, Flammer, Almgren, and Ozluturk discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses wherein the resources include at least one of transmission time slots, spectral spreading codes intended to separate the different communications and transmission frequencies (see col. 3, lines 29-38, 50-59; Figs. 3 and 5A-B).

Regarding **claim 11**, Suzuki discloses a communication system including:

a plurality of adjacent base stations including a base station (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system;

a plurality of mobile terminals, each mobile terminal having a communication transmitted from the base station in the plurality of adjacent base stations (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system;

a plurality of transmission resources, each transmission resource including a plurality of possible configurations that may be allocated to the communications of the plurality mobile terminals (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B),

where the resources (e.g., band and time slots) of the system are allocated to communications with the base station and terminal units. Suzuki does not specifically disclose having the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence at a first regular interval, transmit a seed for each first regular interval for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate at a start of each first regular interval the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; a slow allocation controller configured to determine, at a second regular interval, available resources for each base station, the available resources including a subset of the possible configurations, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval; and said mobile terminals further configured to generate an identical pseudo-random sequence as generated at the fast allocation controller at each mobile terminal based on the seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller. However, the examiner maintains that the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence at a first regular interval, transmit a seed for each first regular interval for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; and said mobile terminals further configured to generate an identical pseudo-random sequence as generated at the fast

allocation controller at each mobile terminal based on from the seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller was well known in the art, as taught by Flammer.

Flammer further discloses the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence at a first regular interval, transmit a seed for each first regular interval for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence (see col. 4, lines 36-62; Fig. 2);

said mobile terminals further configured to generate an identical pseudo-random sequence as generated at the fast allocation controller at each mobile terminal based on from the seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller (see col. 3, line 52 - col. 4, line 9; col. 4, lines 28-62; Figs. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence at a first regular interval, transmit a seed for each first regular interval for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; and said mobile terminals further configured to generate an identical pseudo-random sequence as generated at the fast allocation controller at each mobile terminal

based on from the seed so that each mobile terminal identifies a resource allocated thereto by the fast allocation controller, in order to allow individualized seamless elimination of inoperable channels from a particular node's band plan, as taught by Flammer (see col. 2, lines 59-62). The combination of Suzuki and Flammer does not specifically disclose having the features a fast allocation controller associated with the base station and configured to allocate at a start of each first regular interval; a slow allocation controller configured to determine, at a second regular interval, available resources for each base station, the available resources including a subset of the possible configurations, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval. However, the examiner maintains that the features a fast allocation controller associated with the base station and configured to allocate at a start of each first regular interval; a slow allocation controller configured to determine, at a second regular interval, available resources for each base station, the available resources including a subset of the possible configurations, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval was well known in the art, as taught by Almgren.

Almgren further discloses the features a fast allocation controller associated with the base station and configured to allocate at a start of each first regular interval (e.g., time period) (see pg. 1518, right col., section II. C, lines 15-26; pg. 1517, right col., section I., lines 8-12; pg. 1517, left col., abstract, lines 15-17), where the system for allocation has a

slow ACA which uses a larger time constant such as few hours or several days and a fast ACA which uses a short time constant to allocate channel assignment;

a slow allocation controller configured to determine, at a second regular interval, available resources for each base station, the available resources including a subset of the possible configurations, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval (see pg. 1518, right col. section C, lines 1-15; left col., section B; 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Ozluturk to have the features a fast allocation controller associated with the base station and configured to allocate at a start of each first regular interval; a slow allocation controller configured to determine, at a second regular interval, available resources for each base station, the available resources including a subset of the possible configurations, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, said second regular interval longer than said first regular interval, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **claim 12**, the claim is rejected for the same reasons as set forth above in the rejection of claim 11.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 6,256,356 B1)** in view of **Flammer, III et al.** (hereinafter Flammer) **(US 5,515,369)**, **Almgren et al.** (hereinafter Almgren) "**Adaptive Channel Allocation in TACS**", and **Ozluturk (US 6,754,497 B1)** as applied to claim 7 above, and further in view of **Jamal et al.** (hereinafter Jamal) **(US 6,724,813 B1)** and **Bartolome Pascual et al.** (hereinafter Bartolome) **(US 6,587,449 B1)**.

Regarding **claim 9**, the combination of Suzuki, Flammer, Almgren, and Ozluturk discloses every limitation claimed as applied above in claim 7. The combination of Suzuki, Flammer, Almgren, and Ozluturk does not specifically disclose having the feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system, a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications. However, the examiner maintains that the feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system was well known in the art, as taught by Jamal.

In the same field of endeavor, Jamal discloses the feature wherein each base station (28) and the CDMA radio transceiver (30) which reads on the claimed "mobile terminals" form a portion of a UTRA-TDD mobile telecommunication system (see col. 4, lines 49-67; Fig. 1)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, and Jamal to have the feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system, in order to efficiently allocate communication resources, as taught by Jamal (see col. 2, lines 46-47). The combination of Suzuki, Flammer, Almgren, Ozluturk, and Jamal does not specifically disclose having the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications. However, the examiner maintains that the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications was well known in the art, as taught by Bartolome.

In the same field of endeavor, Bartolome discloses the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications (see col. 4, lines 10-17, 22-38; Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, Ozluturk, Jamal, and Bartolome to have the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications, in order to dynamically distribute the radio channels of a TD-CDMA radio communications system, as taught by Bartolome (see col. 2, lines 30-34).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki** (**US 6,256,356 B1**) in view of **Flammer, III et al**. (hereinafter Flammer) (**US 5,515,369**), **Almgren et al**. (hereinafter Almgren) "**Adaptive Channel Allocation in TACS**", and **Ozluturk** (**US 6,754,497 B1**) as applied to claim 3 above, and further in view of **Jamal et al**. (hereinafter Jamal) (**US 6,724,813 B1**).

Regarding **claim 10**, the combination of Suzuki, Flammer, Almgren, and Ozluturk discloses every limitation claimed as applied above in claim 3. The combination of Suzuki, Flammer, Almgren, and Ozluturk does not specifically disclose having the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH. However, the examiner maintains that the feature wherein the transmitting transmits the parameters for generating the pseudo-random

sequence over the common control channel BCH was well known in the art, as taught by Jamal.

Jamal further discloses the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH (see col. 6, lines 11-14; col. 8, lines 10-14, 20-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Almgren, Ozluturk, and Jamal to have the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH, in order to efficiently allocate communication resources, as taught by Jamal (see col. 2, lines 46-47).

Allowable Subject Matter

7. **Claim 8** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amended language and/or new limitations.

In response to applicant's arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations and comments in this section).

9. The Examiner requests applicant to provide support for the response filed on 29 May 2007 and any further amended claim language.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,JR/

WJD,JR
10 June 2007

TEMICA BEAMER
PRIMARY EXAMINER